

**TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

## INSTRUMENT APPROACH PROCEDURE CHARTS

**IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES**

## Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are listed below. Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not specifically assigned a departure procedure (i.e., ODP, SID, or radar vector) as part of an IFR clearance, an ODP may be required to be flown for obstacle clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be informed when the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishes takeoff minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refer to appropriate service directives.

**NAME TAKEOFF MINIMUMS****NAME TAKEOFF MINIMUMS****ALTURAS, CA**

ALTURAS MUNI (AAT)

AMDT 2 08101 (FAA)

DEPARTURE PROCEDURE: Use BACHS  
DEPARTURE.**AMEDEE AAF (KAHC),**

HERLONG, CA. . . . . AMDT 1, 09239

**Rwy 8, 26:** 4000-3 for climb in visual conditions.**Rwy 8, 26:** Cross Amedee AAF at or above 7900  
before proceeding on course.**ARCATA-EUREKA, CA**

ARCATA (ACV)

AMDT 7 12040 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, Std. w/min. climb of 355'  
per NM to 1100 or 1000-2½ for climb in visual  
conditions. **Rwy 14**, 500-2 1/8 or std. w/min. climb of  
445' per NM to 900.DEPARTURE PROCEDURE: **Rwy 1**, climbing left turn  
thence ..., or for climb in visual conditions: cross Arcata  
Airport westbound at or above 1100. When executing  
VCOA, notify ATC prior to departure. Thence ...**Rwys 14, 19**, climbing right turn thence ...**Rwy 32**, climbing left turn thence ...... On ACV R-250 to HOCUT INT and continue climb to  
MEA on V27.NOTE: **Rwy 1**, trees beginning 222' from DER, 391' right  
of centerline, up to 200' AGL/799' MSL. Trees beginning  
321' from DER, 343' left of centerline, up to 200'  
AGL/839' MSL. **Rwy 14**, trees beginning 1086' from  
DER, 716' right of centerline, up to 100' AGL/286' MSL.  
Trees beginning 4708' from DER, 1558' left of  
centerline, up to 200' AGL/679' MSL. **Rwy 19**, trees  
beginning 543' from DER, 298' right of centerline, up to  
31' AGL/218' MSL. Vegetation 16' from DER, 270' right  
of centerline, 4' AGL/191' MSL. **Rwy 32**, trees  
beginning 4' from DER, 334' left of centerline, up to 20'  
AGL/202' MSL. Trees beginning 1037' from DER, 644'  
right of centerline, up to 85' AGL/267' MSL. Fence 268'  
from DER, 476' right of centerline, 15' AGL/197' MSL.  
NAVAID 581' from DER, 258' right of centerline, 20'  
AGL/202' MSL.



# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L2

## ATWATER, CA

CASTLE (MER)  
AMDT 1A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, std. w/ min. climb of 250' per NM to 2500 or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 126° to 2500 before turning left. For climb in visual conditions, cross Castle Airport at or above 2200 before proceeding on course. **Rwy 31**, climb heading 306° to 1100 before turning right.

NOTE: **Rwy 13**, tree 2539' from DER, 1005' right of centerline, 89' AGL/261' MSL. **Rwy 31**, tree 1274' from DER, 829' left of centerline, 20' AGL/224' MSL. Trees beginning 2909' from DER, 542' right of centerline, 65' AGL/269' MSL.

## AUBURN, CA

AUBURN MUNI (AUN)  
AMDT 1A 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, 300-1 w/ min. climb of 387' per NM to 2500, or 1100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn to 5000 heading 310°, and MYV VOR/DME R-083 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course, or for climb in visual conditions: cross Auburn Muni airport at or above 2500, continue climb to 5000 via heading 275° and MYV VOR/DME R-094 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course. **Rwy 25**, climbing right turn to 5000 via heading 310° and MYV VOR/DME R-083 to MYV VOR/DME, then via MYV VOR/DME R-263 to YUBBA INT before proceeding on course.

NOTE: **Rwy 7**, trees beginning 1117' from DER, 504' right of centerline, up to 40' AGL/1708' MSL. Pole 1365' from DER, 600' right of centerline, 59' AGL/1679' MSL. Tree 3791' from DER, 700' right of centerline, 40' AGL/1639' MSL. **Rwy 25**, tree 37' from DER, 479' left of centerline, 40' AGL/1528' MSL. Tree 86' from DER, 461' right of centerline, 40' AGL/1532' MSL. Fence 301' from DER, 244' right of centerline, 8' AGL/1508' MSL. Trees beginning 660' from DER, 249' right of centerline, up to 40' AGL/1559' MSL.

## BEALE AFB (KBAB)

MARYSVILLE, CA. . . . . ORIG, 09155

DEPARTURE PROCEDURE: **Rwy 15**, Climb on a heading between 100° CW to 325° from DER. **Rwy 33**, Climb on a heading between 146° CW to 344° from DER.

TAKEOFF OBSTACLES: **Rwy 33**, Terrain 118' MSL, 62' from DER, 500' right of centerline. Terrain 119' MSL, 190' from DER, 551' right of centerline.

## BECKWOURTH, CA

NERVINO (O02)  
ORIG 05020 (FAA)

TAKEOFF MINIMUMS: **Rwys 8, 26**, 3500-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 8, 26**, for climb in visual conditions: cross Nervino Airport at or above 8300 before proceeding on course.

NOTE: **Rwy 8**, road 58' from DER, 469' right of centerline, 15' AGL/4920' MSL. Pole 310' from DER, 522' right of centerline, 49' AGL/4925' MSL. Pole 528' from DER, 522' right of centerline, 39' AGL/4924' MSL. Tree 1.47 NM from DER, 727' right of centerline, 100' AGL/5193' MSL. Tree 1.9 NM from DER, 2534' right of centerline, 100' AGL/5499' MSL. Bush 2.03 NM from DER, 2126' right of centerline, 4' AGL/5406' MSL. **Rwy 26**, tree 5856' from DER, 1984' right of centerline, 100' AGL/5339' MSL. Tree 1.25 NM from DER, 2439' right of centerline, 100' AGL/5420' MSL. Tree 2.07 NM from DER, 3302' left of centerline, 100' AGL/5570' MSL.

## BISHOP, CA

EASTERN SIERRA RGNL (BIH)  
AMDT 3 10322 (FAA)

TAKEOFF MINIMUMS: **Rwys 7, 12, 16**, NA-terrain.

**Rwy 25**, std. w/ min. climb of 280' per NM to 10300. **Rwys 30, 34**, std. w/ min. climb of 285' per NM to 10300.

DEPARTURE PROCEDURE: **Rwys 25, 30**, climbing right turn on heading 360, thence...

**Rwy 34**, climb left turn on heading 290°, thence...  
...all aircraft intercept BIH R-322 to NIKOL INT/BIH 38.46 DME.

NOTE: **Rwy 25**, trees and bushes beginning 69' from DER, 32' right of centerline, up to 100' AGL/4234' MSL. Trees beginning 709' from DER, 31' left of centerline, up to 47' AGL/4167' MSL. **Rwy 30**, rising terrain 58' from DER, 422' right of centerline, 4143' MSL. Trees beginning 763' from DER, 155' right of centerline, up to 100' AGL/4207' MSL. Trees beginning 1598' from DER, 21' left of centerline, up to 100' AGL/4205' MSL. **Rwy 34**, trees beginning 83' from DER, 31' right of centerline, up to 60' AGL/4146' MSL. Rising terrain 31' from DER, 348' left of centerline, 4118' MSL. Trees beginning 95' from DER, 141' left of centerline, up to 60' AGL/4146' MSL.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L3

## BYRON, CA

BYRON (C83)

AMDT 1 06047 (FAA)

TAKEOFF MINIMUMS: **Rwy 23**, NA-obstacles.

**Rwy 30**, 200-1 or std. with a min. climb of 240' per NM to 300. Alternatively, with standard TAKEOFF minimums and a normal 200'/NM climb gradient, TAKEOFF must occur no later than 2000' prior to DER.

DEPARTURE PROCEDURE: **Rwy 5**, climbing right turn via heading 120° and ECA VORTAC before proceeding on course. **Rwy 12**, climbing left turn via heading 050° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course. **Rwy 30**, climbing right turn via heading 130° and ECA VORTAC R-250 to ECA VORTAC before proceeding on course.

NOTE: **Rwy 5**, bush 17' from DER, 67' right of centerline, 6' AGL/52' MSL. **Rwy 12**, multiple trees and bush beginning 240' from DER, 286' right of centerline, up to 39' AGL/76' MSL. **Rwy 30**, multiple poles, building, and terrain beginning 66' from DER, 228' left of centerline, up to 65' AGL/225' MSL. Multiple poles beginning 949' from DER, 28' right of centerline, up to 42' AGL/103' MSL.

## COLUMBIA, CA

COLUMBIA (O22)

ORIG 99364 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 300-1 with a min. climb rate of 300' per NM to 3000. **Rwy 35**, NA.

DEPARTURE PROCEDURE: **Rwy 17**, use FICHIU RNAV DEPARURE. **Rwy 35**, NA.

NOTE: **Rwy 17**, 51' AGL pole 502' from DER, 368' right of centerline, 90' AGL tree 483' from DER, 535' right of centerline; 100 AGL tree 1258' from DER, 494' left of centerline; 167' AGL tree 1644' from DER, 924' right of centerline.

## COLUSA, CA

COLUSA COUNTY (O08)

ORIG 74185 (FAA)

DEPARTURE PROCEDURE: Climb direct to ILA VORTAC.

## CONCORD, CA

BUCHANAN FIELD (CCR)

AMDT 2 07354 (FAA)

TAKEOFF MINIMUMS: **Rwys 1L/R**, std. w/ min. climb of 360' per NM to 1100, or 2200-3 for climb in visual conditions. **Rwys 14L/R**, std. w/ min. climb of 420' per NM to 2700, or 2200-3 for climb in visual conditions. **Rwys 19L/R**, std. w/ min. climb of 490' per NM to 4000, or 2200-3 for climb in visual conditions. **Rwys 32L/R**, std. w/ min. climb of 320' per NM to 500, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1L/R**, climb direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...**Rwys 14L/R, 19L/R** climbing left turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...**Rwys 32L/R**, climbing right turn direct CCR VOR/DME, or climb in visual conditions to cross Buchanan Airport northbound at or above 2100 via CCR R-173 to CCR VOR/DME, thence...

...aircraft departing CCR VOR/DME R-150 clockwise R-110 climb on course. All others climb in CCR VOR/DME holding pattern (north, left turns, 191° inbound) to cross CCR VOR/DME at or above 2700 before proceeding on course.

## CHICO, CA

CHICO MUNI (CIC)

AMDT 6 12040 (FAA)

DEPARTURE PROCEDURE: **Rwy 13L/R**, climbing right turn to intercept CIC R-205, thence ... **Rwy 31L/R**, climbing left turn heading 140° to intercept CIC R-205. Thence ... all aircraft climb via CIC R-205 to JINGO INT. Aircraft departing JINGO INT 030° CW 345° climb on course. All others climb in JINGO INT holding pattern (hold SE, right turns, 320° inbound) to depart JINGO INT at or above 3800.

NOTE: **Rwy 13L**, terrain 298' from DER, 537' left of centerline, 216' MSL. Pole 957' from DER, 735' left of centerline, 35' AGL/232' MSL. Trees beginning 948' from DER, 559' left of centerline, up to 51' AGL/241' MSL. **Rwy 13R**, plane on TARMAC 582' from DER, 647' left of centerline, up to 40' AGL/255' MSL. **Rwy 31L**, plane on tarmac 570' from DER, 647' right of centerline, up to 40' AGL/279' MSL. **Rwy 31R**, trees beginning 1124' from DER, right and left of centerline, up to 60' AGL/282' MSL.

## CLOVERDALE, CA

CLOVERDALE MUNI (O60)

AMDT 1 11349 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, 700-3 w/min. climb of 390' per NM to 1200 or std. w/min. climb of 744' per NM to 1000, or 3600-3 for climb in visual conditions. **Rwy 32**, NA - Obstacles.

DEPARTURE PROCEDURE: **Rwy 14**, climb direct STS VOR/DME, thence...

Or climb in visual conditions to cross Cloverdale Muni airport at or above 3700 before proceeding on course. ...Climb in STS VOR/DME holding pattern (hold NW, right turns, 140° inbound) to cross STS VOR/DME at or above MEA/MCA for direction of flight.

NOTE: **Rwy 14**, trees beginning 19' from DER, 23' right of centerline, up to 100' AGL/404' MSL. Trees beginning 1.6 NM from DER, 491' right of centerline, up to 100' AGL/959' MSL. Trees beginning 258' from DER, on centerline, up to 100' AGL/296' MSL. Trees beginning 21' from DER, 7' left of centerline, up to 100' AGL/442' MSL. Trees beginning 1.7 NM from DER, 34' left of centerline, up to 100' AGL/679' MSL. Buildings 1524' from DER, 110' right of centerline, up to 427' MSL. Buildings 4605' from DER, 532' left of centerline, up to 408' MSL.

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L4

## CONCORD, CA (CON'T)

### BUCHANAN FIELD (CON'T)

NOTE: **Rwy 1L**, multiple trees and bushes beginning 675' from DER, 9' left of centerline, up to 48' AGL/98' MSL. Multiple poles, light poles and antennas on buildings beginning 639' from DER, 120' left of centerline, up to 50' AGL/72' MSL. Fence 117' from DER, 2' right of centerline, 12' AGL/29' MSL. Sign 1996' from DER, 812' left of centerline, 45' AGL/78' MSL. Flagpole 1520' from DER, 753' left of centerline, 40' AGL/71' MSL. **Rwy 1R**, multiple trees and poles beginning 1552' from DER, 98' right of centerline, up to 52' AGL/131' MSL. **Rwy 19R**, multiple trees beginning 604' from DER, 82' left of centerline, up to 70' AGL/108' MSL. Light pole 1392' from DER, 749' right of centerline, 51' AGL/71' MSL. Obstruction light on building 2451' from DER, 911' left of centerline, 73' AGL/97' MSL. Fence 123' from DER, 503' left of centerline, 6' AGL/30' MSL. **Rwy 19L**, multiple trees beginning 2132' from DER, 28' left of centerline, up to 70' AGL/106' MSL. **Rwy 32L**, road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL. Light on tank 6617' from DER, 1926' right of centerline, 114' AGL/213' MSL. Hangar 259' from DER, 300' left of centerline, 21' AGL/37' MSL. Transmission tower 6015' from DER, 1338' left of centerline, 145' AGL/173' MSL. Tree 825' from DER, 136' left of centerline, 25' AGL/40' MSL, building 633' from DER, 254' right of centerline, 20' AGL/35' MSL. **Rwy 32R**, train 6345' from DER, 1948' left of centerline, 23' AGL/102' MSL, obstruction light on hopper 2110' from DER, 601' right of centerline, 79' AGL/99' MSL. Obstacle light on tank 6617' from DER, 1426' right of centerline, 193' AGL/213' MSL. Flagpole 655' from DER, 300' right of centerline, 35' AGL/43' MSL. Sign 697' from DER, 248' right of centerline, 25' AGL/41' MSL. Road/vehicle 561' from DER, on centerline, 15' AGL/49' MSL. Building 633' from DER, 246' left of centerline, 20' AGL/35' MSL, tree 825' from DER, 635' left of centerline, 25' AGL/40' MSL, transmission tower 6015' from DER, 1839' left of centerline, 145' AGL/173' MSL. **Rwy 14R**, obstacle lights, buildings and trees beginning 412' from DER, 167' right of centerline, up to 104' AGL/136' MSL. **Rwy 14L**, multiple trees beginning 841' from DER, 61' left of centerline, up to 78' AGL/102' MSL, building 1071' from DER, 35' left of centerline, 30' AGL/58' MSL. Fence 225' from DER, 29' left of centerline, 12' AGL/33' MSL.

## CRESCENT CITY, CA

### JACK MC NAMARA FIELD (CEC)

#### AMDT 1 12208 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, 300-1 or std. w/min. climb of 292' per NM to 300. **Rwy 35**, 400-1 or std. w/min. climb of 442' per NM to 300.

DEPARTURE PROCEDURE: **Rwys 11, 17**- climbing right turn, thence...

**Rwys 29, 35**, climbing left turn, thence...

...Climb direct CEC VORTAC. Aircraft departing CEC R-139 CW R-345 climb on course. All others continue climb in CEC VORTAC holding pattern (hold S, left turns, 341° inbound) to cross CEC VORTAC at or above: R-346 CW R-043, 2900; R-044 CW 108, 4300; R-109 CW R-138, 2900.

NOTE: **Rwy 11**, trees beginning 810' from DER, left and right of centerline, up to 137' AGL/186' MSL. **Rwy 17**, tree 37' from DER, 275' right of centerline, 31' AGL/61' MSL. Vehicles on road beginning 362' from DER left and right of centerline, up to 15' AGL/60' MSL. Ground 4988' from DER, 1723' right of centerline, 238' MSL. **Rwy 29**, tree 90' from DER, 456' right of centerline, 20' AGL/60' MSL. Tree 164' from DER, 442' left of centerline, 14' AGL/64' MSL. **Rwy 35**, ground beginning 1' from DER, left and right of centerline, up to 97' MSL. Bushes beginning 72' from DER left and right of centerline, up to 29' AGL/79' MSL. Trees beginning 216' from DER, left and right of centerline, up to 175' AGL/215' MSL.

## DAVIS, CA

### UNIVERSITY (EDU)

#### AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn via heading 200° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 35**, climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

NOTE: **Rwy 17**, trees beginning 1353' from DER, 31' right of centerline, up to 40' AGL/109' MSL. **Rwy 35**, tree 24' from DER, 433' left of centerline, 40' AGL/104' MSL. Vehicle 288' from DER, on centerline, 15' AGL/74' MSL.

## DAVIS/WOODLAND/WINTERS, CA

### YOLO COUNTY (DWA)

#### AMDT 1 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, climb heading 164° to 2100 before turning right. **Rwy 34**, climb heading 344° to 1500 before turning left.

NOTE: **Rwy 16**, multiple trees beginning 595' from DER, 308' right of centerline, up to 120' AGL/206' MSL. Multiple trees beginning 1046' from DER, 257' left of centerline, up to 120' AGL/195' MSL. **Rwy 34**, multiple trees beginning 417' from DER, 361' right of centerline, up to 120' AGL/206' MSL. Trees beginning 683' from DER, 491' left of centerline, up to 120' AGL/206' MSL. Pole 859' from DER, 548' left of centerline, 47' AGL/137' MSL.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L5

## EUREKA, CA

MURRAY FIELD (EKA)

AMDT 4 09239 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, std. w/ min. climb of 465' per NM to 1800 or 3800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12** climbing right turn heading 265° to intercept V27. For climb in visual conditions: cross Eureka airport at or above 3700 before proceeding on course. **Rwy 30**, climbing left turn heading 265° to intercept V27.

NOTE: **Rwy 12**, bush 50' from DER, 82' left of centerline, 6' AGL/16' MSL. Multiple trees beginning 1.5 NM from DER, 2993' left of centerline. Multiple trees beginning 1.6 NM from DER, 2318' right of centerline. **Rwy 30**, multiple trees, beginning 443' from DER, 389' right of centerline, up to 93' AGL/103' MSL. Tree 664' from DER, 587' left of centerline, 46' AGL/56' MSL. Pole 753' from DER, 155' right of centerline 27' AGL/ 37' MSL. Railroad 786' from DER, 4' left of centerline 23' AGL/31' MSL. Road beginning 602' from DER, 4' left of centerline up to 15' AGL/23' MSL. Bush 566' from DER, 69' left of centerline, 8' AGL/18' MSL.

## FIREBAUGH, CA

FIREBAUGH (F34)

AMDT 2 12264 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn heading 134° to intercept the PXN VORTAC R-061 to MENDO INT. Aircraft departing MENDO INT heading 230° CW 150°, climb on course. All others, climb in MENDO INT holding pattern (hold NE, right turns, 241° inbound) to cross MENDO INT at or above 3000 before proceeding on course. **Rwy 30**, climbing left turn heading 180° to intercept PXN VORTAC R-061 to PXN VORTAC, continue climb in PXN VORTAC holding pattern (SW, right turns, 049° inbound) to cross PXN VORTAC at or above airway MEA/MCA for route of flight.

NOTE: **Rwy 30**, poles beginning 921' from DER, 525' left of centerline, up to 65' AGL/203' MSL. Elevator 1941' from DER, 739' right of centerline, 97' AGL/242' MSL.

## FORTUNA, CA

ROHNERVILLE (FOT)

AMDT 3 86296 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, NA.

DEPARTURE PROCEDURE: Climb direct FOT VORTAC. Continue climb in holding pattern (hold N, right turns, 161° inbound) to cross FOT VORTAC at or above 3000.

## FRESNO, CA

FRESNO-CHANDLER EXECUTIVE (FCH)

AMDT 2 09015 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 111° to 2000 then climbing right turn to 6300 via heading 200° and CQZ VORTAC R-167 before proceeding on course.

**Rwy 30**, climb heading 291° to 2000 then climbing left turn to 5500 via heading 140° and CQZ VORTAC R-167 before proceeding on course.

NOTE: **Rwy 12**, multiple trees, poles, and terrain beginning 84' from DER, 16' left of centerline, up to 92' AGL/371' MSL. Multiple trees, poles, road, fence and terrain beginning 53' from DER, 94' right of centerline, up to 62' AGL/341' MSL. **Rwy 30**, multiple trees, poles, bushes and terrain beginning 125' from DER, 46' left of centerline, up to 111' AGL/389' MSL. Multiple poles, road, and fence beginning 236' from DER, 23' right of centerline, up to 42' AGL/320' MSL.

## FRESNO YOSEMITE INTL (FAT)

AMDT 7 12320 (FAA)

DEPARTURE PROCEDURE: **Rwys 11L, 11R**, climbing left turn heading 291°, thence ...

**Rwys 29L, 29R**, climb heading 291°, thence ... Continue climb via heading 291° and FRA R-202° to NIVEE INT/FRA 8 DME, continue climb-in-hold (hold South, right turns, 022° inbound) to cross NIVEE at or above MEA for route of flight.

NOTE: **Rwy 11L**, electrical equipment 1222' from DER, 663' right of centerline, 35' AGL/363' MSL. Pole 1626' from DER, 736' right of centerline, 43' AGL/373' MSL. Sign 1692' from DER, 864' right of centerline, 53' AGL/383' MSL. Pole 647' from DER, 542' left of centerline, 19' AGL/349' MSL. **Rwy 11R**, obstruction light on RVR equipment 328' from DER, 279' left of centerline, 24' AGL/349' MSL. Obstruction light on glideslope 663' from DER, 274' left of centerline, 37' AGL/362' MSL. Light pole 1597' from DER, 294' right of centerline, 25' AGL/386' MSL. **Rwy 29L**, trees beginning 1287' from DER, 175' left of centerline, up to 67' AGL/392' MSL. Tree 1907' from DER, 626' right of centerline, 55' AGL/380' MSL. **Rwy 29R**, pole 1025' from DER, 559' right of centerline, 32' AGL/364' MSL. Trees beginning 1648' from DER, 844' left of centerline, up to 67' AGL/392' MSL.

## GRASS VALLEY, CA

NEVADA COUNTY AIR PARK (GOO)

AMDT 1 98001 (FAA)

TAKEOFF MINIMUMS: **Rwy 7**, NA.

DEPARTURE PROCEDURE: **Rwy 25**, climb via MYV R-058 to 6000 then continue climb on course.

## GROVELAND, CA

PINE MOUNTAIN LAKE (E45)

ORIG 97030 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, 400-2 or std. with a min. climb of 400' per NM to 4000.

DEPARTURE PROCEDURE: **Rwy 9**, turn right. **Rwy 27**, turn left. All aircraft climb direct LIN VORTAC. Cross LIN VORTAC at or above 5000.

## HALF MOON BAY, CA

HALF MOON BAY (HAF)

ORIG 97142 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 2600-2 or std. with a min. climb of 300' per NM to 3000. **Rwy 30**, NA.

DEPARTURE PROCEDURE: **Rwy 12**, climb runway heading to 3000, then climb direct OSI VORTAC, to cross OSI VORTAC at or above 3500 before proceeding on course.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



## HANFORD, CA

HANFORD MUNI (HJO)

AMDT 1 04050 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climbing left turn heading 050° to intercept V-23. **Rwy 32**, climbing right turn heading 050° to intercept V-23.

## HAYWARD, CA

HAYWARD EXECUTIVE (HWD)

AMDT 1 11013 (FAA)

DEPARTURE PROCEDURE: **Rwys 10L, 10R**,

Climbing right turn direct OSI VORTAC. **Rwys 28L,**

**28R**, Climbing left turn direct OSI VORTAC.

NOTE: **Rwy 10L**, hangars, trees and buildings beginning 625' from DER, 67' left of centerline, up to 100' AGL/155' MSL. Trees beginning 2050' from DER, 1' right of centerline, up to 60' AGL/107' MSL.

**Rwy 10R**, trees, poles, and buildings beginning 21' from DER, 61' left of centerline, up to 100' AGL/155' MSL. Windsock, blast fence, trees, buildings and pole beginning 23' from DER, 38' right of centerline, up to 74' AGL/119' MSL. **Rwy 28L**, trees beginning 899' from DER, 141' left of centerline, up to 93' AGL/108' MSL. Antennas, road, and trees beginning 108' from DER, 68' right of centerline, up to 87' AGL/102' MSL.

**Rwy 28R**, antenna and trees beginning 728' from DER, 28' left of centerline, up to 87' AGL/102' MSL. Trees beginning 391' from DER, 4' right of centerline, up to 95' AGL/125' MSL.

## HOLLISTER, CA

HOLLISTER MUNI (CVH)

AMDT 1 08157 (FAA)

TAKEOFF MINIMUMS: **Rwy 6**, NA-obstacles. **Rwy 24**, NA-ATC. **Rwy 13**, std. w/ min. climb of 391' per NM to 3500, or 3100-3 for climb in visual conditions. **Rwy 31**, std. w/ min climb of 209' per NM to 2300, or 3100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn to heading 332° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course. **Rwy 31**, climb heading 307° and via SJC R-121 direct SJC VOR/DME to 6000 before proceeding on course or for climb in visual conditions: cross Hollister Muni Airport at or above 3100 MSL before proceeding on course.

NOTE: **Rwy 13**, terrain beginning 992' from DER, 348' left of centerline, up to 289' MSL. Terrain beginning 2467' from DER, 154' right of centerline, up to 309' MSL, trees beginning 1277' from departure end of r runway, 348' left of centerline, up to 309' MSL, trees beginning 2467' from DER, 153' right of centerline, up to 270' MSL. **Rwy 31**, terrain beginning 76' from DER, 392' left of centerline, up to 247' MSL. Terrain beginning 14' from DER, 179' right of centerline, up to 231' MSL.

## JACKSON, CA

WESTOVER FIELD AMADOR COUNTY (JAQ)

ORIG 93091 (FAA)

DEPARTURE PROCEDURE: **Rwy 1**, turn left.

**Rwy 19**, turn right. **All aircraft** climb direct LIN VORTAC, continue climb on course.

## LAKEPORT, CA

LAMPSON FIELD (102)

AMDT 1 10098 (FAA)

TAKEOFF MINIMUMS: **Rwy 10**, std. with a min. climb of 400' per NM to 4500, do not exceed 210 Knots until intercepting the ENI R-073 or 3200-3 for climb in visual conditions. **Rwy 28**, NA-Rapidly rising terrain.

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn to 6000 via heading 310° and ENI R-073 to ENI VORTAC before proceeding on course, or for climb in visual conditions: cross Lampson Field at or above 4400 MSL before proceeding on course.

NOTE: **Rwy 10**, vehicle on road 347' from DER, 7' right of centerline, 15' AGL/1394' MSL. Trees beginning 280' from DER, 201' left of centerline, up to 100' AGL/1479' MSL. Trees beginning 494' from DER, 219' right of centerline, up to 100' AGL/1479' MSL.

## LEMOORE NAS (REEVES FIELD) (KNLC)

LEMOORE, CA . . . . . 07270

**Rwy 14L**, Cross DER at or above 15' AGL/235' MSL.

**Rwy 14R**, Cross DER at or above 15' AGL/245' MSL.

**Rwy 32L**, Cross DER at or above 15' AGL/ 234' MSL, Departure headings 142° CW 283°, minimum military climb 220 ft/NM to 6400, minimum civil climb 220 ft/NM to 6600.

**Rwy 32R**, Cross DER at or above 15' AGL/239' MSL, Departure headings 142° CW 281° minimum military climb 220 ft/NM to 6400, minimum civil climb 220 ft/NM to 6600.

## LINCOLN, CA

LINCOLN RGNL/KARL HARDER FIELD (LHM)

AMDT 3 95201 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climbing right turn. **Rwy 33**, climbing left turn. **All aircraft** climb direct MYV VOR/DME, then climb on course.

## LITTLE RIVER, CA

LITTLE RIVER (LLR)

ORIG 10154 (FAA)

DEPARTURE PROCEDURE: Use LITTLE RIVER DEPARTURE.

## LIVERMORE, CA

LIVERMORE MUNI (LVK)

TAKEOFF MINIMUMS: **Rwys 7L, 7R**, 1500-2 or std. with a min. climb of 260' per NM to 2200. **Rwys 25L, 25R**, 2300-2 or std. with a min. climb of 375' per NM to 3100. DEPARTURE PROCEDURE: **Rwys 7L, 7R**, climb direct REIGA LOM, then climbing left turn via the 030° bearing from REIGA LOM to intercept V109, then proceed on course. **Rwys 25L, 25R**, climb runway heading to 1200, then climbing right turn via heading 020° and OAK R-060 to ALTAM Int, then proceed on course.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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## LODI, CA

LODI (103)

AMDT 2 10322 (FAA)

TAKEOFF MINIMUMS: **Rwy 12, 30**, NA-  
Environmental.

DEPARTURE PROCEDURE: **Rwy 8**, climb heading  
076° to 600 then climbing right turn on LIN R-290 to  
LIN VORTAC, thence...

**Rwy 26**, climb heading 256° to 800 climbing right turn  
on heading 080° to intercept LIN R-290 to LIN  
VORTAC, thence...

...continue climb in hold (hold Southeast, right turns,  
326° inbound) to MCA or MEA for route of flight.

NOTE: **Rwy 8**, multiple hangars, buildings, and  
vehicles on roadways beginning at DER, left and right  
of centerline, up to 25' AGL/84' MSL. Powerlines  
beginning at 4.9 NM from DER, left and right of  
centerline, up to 160' AGL/220' MSL. **Rwy 26**,  
vehicles on roadway beginning 7' from DER, 265' right  
of centerline, up to 15' AGL/69' MSL. Trees beginning  
15' from DER, left and right of centerline, up to 100'  
AGL/154' MSL. Powerlines beginning at 4.6 NM from  
DER, left and right of centerline, up to 160' AGL/220'  
MSL.

## LOS BANOS, CA

LOS BANOS MUNI (LSN)

AMDT 2 09351 (FAA)

DEPARTURE PROCEDURE: **Rwy 14**, climb on a  
heading between 318° CW to 151° from DER, or  
minimum climb of 320' per NM to 5100 for all other  
courses. **Rwy 32**, climb on a heading between 260°  
CW to 137° from DER, or minimum climb of 273' per  
NM to 5200 for all other courses.

NOTE: **Rwy 14**, multiple trees, poles, buildings  
beginning 3' from DER, 24' left of centerline, up to 73'  
AGL/194' MSL. Multiple trees, poles, buildings  
beginning 20' from DER, 21' right of centerline, up to  
85' AGL/206' MSL. **Rwy 32**, multiple trees beginning  
220' from DER, 453' right of centerline, up to 40'  
AGL/160' MSL. Multiple poles, beginning 1120' from  
DER, 173' left of centerline, up to 60' AGL/181' MSL.

## MADERA, CA

MADERA MUNI (MAE)

AMDT 3 87043 (FAA)

DEPARTURE PROCEDURE: **Rwy 30**, climbing right  
turn via FRA R-243 to BEREN Int/FRA 18.6 DME then  
via assigned route. **Rwy 12**, turn left, climb heading  
095° to 1500, continue climb direct CZQ VORTAC,  
then via assigned route.

## MAMMOTH LAKES, CA

MAMMOTH YOSEMITE (MMH)

AMDT 1 10266 (FAA)

TAKEOFF MINIMUMS: **Rwy 9**, std. w/ min. climb of  
400' per NM to 10700. **Rwy 27**, std. w/ min. climb  
of 590' per NM to 12200. **Rwy 27**, NA at night.

DEPARTURE PROCEDURE: **Rwy 9**, climb heading  
094° to 10700, then climbing left turn heading 052°  
to intercept BIH R-322 northwestbound to NIKOL  
INT before proceeding on course. **Rwy 27**,  
climbing right turn heading 052° to intercept BIH R-  
322 northwest bound to NIKOL INT before  
proceeding on course. Note:

**Rwy 27** NA at night. Do not exceed 250 KIAS until  
established on 052° heading.

NOTE: **Rwy 9**, vehicles on roadway 11' from DER,  
460' right of centerline, up to 15' AGL/7078' MSL.  
Tree 4900' from DER, 1057' right of centerline 100'  
AGL/7283' MSL. Tree 1585' from DER, 659' left of  
centerline, 100' AGL/7152' MSL. **Rwy 27**, vehicles  
on roadway 178' from DER, 461' left of centerline,  
up to 15' AGL/7160' MSL. Bushes beginning 211'  
from DER, from 269' left of centerline, up to 15'  
AGL/7150' MSL. Building 386' from DER, 434' right  
of centerline, 28' AGL/7155' MSL. Tree 2470' from  
DER, 642' right of centerline, 100' AGL/7218' MSL.

## MARINA, CA

MARINA MUNI (OAR)

AMDT 2 10042 (FAA)

TAKEOFF MINIMUMS: **Rwy 11**, std. with a min.  
climb of 307' per NM to 4500, or 2000-2½ for climb  
in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11**, climb heading  
108° and SNS VORTAC R-252 to SNS VORTAC,  
thence..., or for climb in visual conditions: cross  
Marina Muni Airport at or above 2100, then proceed  
on SNS VORTAC R-261 to SNS VORTAC,  
thence... **Rwy 29**, climb via heading 288° to 1200',  
then climbing right turn direct SNS VORTAC,  
thence...

**All aircraft** continue climb in SNS holding pattern  
(West, left turns, 084° inbound) to cross SNS  
VORTAC at or above MEA/MCA for direction of  
flight before proceeding on course.

NOTE: **Rwy 11**, windsock 32' from DER, 386' left of  
centerline, 8' AGL/148' MSL. **Rwy 29**, bush 158'  
from DER, 272' right of centerline, 10' AGL/142'  
MSL.

## MARIPOSA, CA

MARIPOSA-YOSEMITE (MPI)

ORIG 05020 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, N/A-Obstacles  
DEPARTURE PROCEDURE: **Rwy 26**, climb via  
heading 265° to 3000, then climbing left turn to  
7000 direct FRA VORTAC before proceeding on  
course.

NOTE: **Rwy 26**, tree 10' from DER, 313' left of  
centerline, 100' AGL/2265' MSL. Tree 1146' from  
DER, 303' left of centerline, 100' AGL/2298' MSL.

## MARYSVILLE, CA

YUBA COUNTY (MYV)

AMDT 1 81050 (FAA)

DEPARTURE PROCEDURE: **All runways**, climb  
direct ILA VORTAC.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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## MERCED, CA

MERCED RGNL/MACREADY FIELD (MCE)  
AMDT 5A 09155 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn to 3000 via heading 330° and MOD R-120 to MOD. **Rwy 30**, climb to 3000 via heading 300° and MOD R-120 to MOD.

## MODESTO, CA

MODESTO CITY-COUNTY HARRY SHAM FIELD (MOD)

AMDT 5A 13010 (FAA)

DEPARTURE PROCEDURE: **Rwys 28L, 28R**, climb on a heading between 256° CW to 109° from DER, or minimum climb of 230' per NM to 5000 for all other courses.

NOTE: **Rwy 10R**, trees beginning 169' from DER, 37' right of centerline, up to 91' AGL/195' MSL. Sign 57' from DER, 211' right of centerline, 15' AGL/89' MSL. Sign 16' from DER, 135' left of centerline, 4' AGL/87' MSL. Trees beginning 823' from DER, 79' left of centerline, up to 89' AGL/148' MSL. **Rwy 10L**, trees beginning 15' from DER, 65' right of centerline, up to 68' AGL/172' MSL. Vehicles on road beginning 178' from DER, 17' left of centerline, up to 15' AGL/96' MSL. Trees beginning 1413' from DER, 184' left of centerline, up to 63' AGL/126' MSL. **Rwy 28R**, vehicles on road beginning 47' from DER, 332' right of centerline, up to 15' AGL/114' MSL. Pole 754' from DER, 699' right of centerline, 34' AGL/133' MSL. Building 979' from DER, 697' right of centerline, 29' AGL/128' MSL. Tree 1390' from DER, 516' right of centerline, 37' AGL/136' MSL. Trees beginning 2077' from DER, 379' left of centerline, up to 79' AGL/173' MSL. **Rwy 28L**, multiple poles, trees, and buildings beginning 128' from DER, 34' left of centerline, up to 102' AGL/196' MSL. Vehicles on road beginning 448' from DER, 219' left of centerline, up to 15' AGL/112' MSL. Multiple poles and building beginning 1021' from DER, 350' right of centerline, up to 57' AGL/154' MSL. Trees beginning 1112' from DER, 20' right of centerline, up to 70' AGL/164' MSL.

## MONTAGUE, CA

SISKIYOU COUNTY (SIY)

AMDT 2 87099 (FAA)

TAKEOFF MINIMUMS: **Rwy 17**, CAT A,B 2400-2 or std. with a min. climb of 350' per NM to 5500. CAT C,D 4100-2 or std. with a min. climb of 350' per NM to 7400. **Rwy 35**, 4000-2 or std. with a min. climb of 300' per NM to 7000.

DEPARTURE PROCEDURE: **Rwy 17**, climb direct MOG NDB. Continue climb to 10000 in MOG holding pattern (hold N, right turns, 172° inbound). **Rwy 35**, climb to 7000 via runway heading and 352° bearing from MOG NDB, then climbing right turn to 10000 direct MOG NDB. **All aircraft** depart MOG NDB at or above MEA for route of flight.

## MONTEREY, CA

MONTEREY PENINSULA (MRY)

AMDT 6 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 10L**, std. w/ min. climb of 428' per NM to 1900 or 1700-2½ for climb in visual conditions. **Rwy 10R**, std. w/ min. climb of 451' per NM to 1900 or 1700-2½ for climb in visual conditions. **Rwy 28L**, std. w/ min. climb of 218' per NM to 800 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10L**, climbing left turn heading 020° and SNS VORTAC R-231 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 10R**, climbing left turn heading 020° and SNS VORTAC R-231 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course.

**Rwy 28L**, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC before proceeding on course or for climb in visual conditions, cross Monterey Peninsula airport at or above 1800, then via SNS VORTAC R-231 to SNS VORTAC before proceeding on course. **Rwy 28R**, climbing right turn heading 045° and SNS VORTAC R-260 to SNS VORTAC before proceeding on course.

NOTE: **Rwy 10L**, obstruction light on DME 555' from DER, 217' right of centerline, 12' AGL/272' MSL. Tree 1.8 NM from DER, 2817' right of centerline, up to 100' AGL/859' MSL. **Rwy 10R**, obstruction light on DME 64' from DER, 284' left of centerline, 12' AGL/272' MSL. Tree 1.7 NM from DER, 2318' right of centerline, up to 100' AGL/859' MSL. **Rwy 28L**, tree 743' from DER, 619' left of centerline, up to 100' AGL/240' MSL. Tree 2.9 NM from DER, 2298' left of centerline, up to 100' AGL/640' MSL. Tree 2.9 NM from DER, 4578' left of centerline, 114' AGL/853' MSL. **Rwy 28R**, airplane 6' from DER, 179' left of centerline, 64' AGL/263' MSL.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L9

## MOUNTAIN VIEW, CA

MOFFETT FEDERAL AFLD (NUQ)

AMDT 2 12292 (FAA)

TAKEOFF MINIMUMS: **Rwys 14L, 14R**, std. w/ min. climb of 550' per NM to 4000 or 1700-2½ for climb in visual conditions. **Rwys 32L, 32R**, std. w/ min. climb of 285' per NM to 3500 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 14L, 14R**, climbing right turn direct OSI VORTAC, thence... or for climb in visual conditions cross Moffett Federal Airfield at or above 1600 then on OSI R-066 to OSI VORTAC, thence...

When executing VCOA notify ATC prior to departure.

**Rwys 32L, 32R**, climb heading 322° to 700, then climbing left turn heading 230° until receiving OSI VORTAC, then direct OSI VORTAC, thence... or for climb in visual conditions cross Moffett Federal Airfield at or above 1600 then on OSI R-066 to OSI VORTAC, thence...

When executing VCOA notify ATC prior to departure.

...continue climb in OSI VORTAC holding pattern (hold southeast, left turns, 321° inbound) to cross OSI VORTAC at or above MEA for route of flight.

NOTE: **Rwy 32R**, light support structures abeam DER, 76' left and 76' right of centerline, up to 3' AGL/7' MSL. Vehicles on road beginning 512' from DER, 158' right of centerline, up to 15' AGL/20' MSL. Fence 134' from DER, left and right of centerline, up to 8' AGL/12' MSL. **Rwy 32L**, light support structures abeam DER, 76' left and 76' right of centerline, up to 1' AGL/5' MSL. Navaid 449' from DER, 315' right of centerline, up to 17' AGL/21' MSL. Tree 1632' from DER, 934' left of centerline, up to 100' AGL/129' MSL. **Rwy 14L**, light support structure 13' from DER, 126' right of centerline, up to 4' AGL/34' MSL. Vehicles on road beginning 770' from DER, 547' right of centerline, 15' AGL/53' MSL. Rail car on railroad beginning 774' from DER, 261' right of centerline, up to 23' AGL/60' MSL. Trees beginning 1191' from DER, 71' right of centerline, up to 100' AGL/171' MSL. Trees beginning 1922' from DER, 109' left of centerline, up to 100' AGL/153' MSL. **Rwy 14R**, light support structures abeam DER, 77' right and 77' left of centerline, up to 3' AGL/37' MSL. Fence, 187' from DER, 488' right of centerline, up to 8' AGL/45' MSL. Vehicles on road beginning 207' from DER, 520' right of centerline, 15' AGL/55' MSL. Rail car on railroad beginning 955' from DER, 342' left of centerline, up to 23' AGL/60' MSL. Trees beginning 1066' from DER, 34' left of centerline, up to 100' AGL/153' MSL.

## NAPA, CA

NAPA COUNTY (APC)

AMDT 4 10154 (FAA)

DEPARTURE PROCEDURE: Use NAPAA DEPARTURE.

## NOVATO, CA

GNOSS FIELD (DVO)

AMDT 1 11013 (FAA)

TAKEOFF MINIMUMS: **Rwy 13**, 400-2½ or std. w/ min. climb of 575' per NM to 500. **Rwy 31**, 600-2½ w/ min. climb of 285' per NM to 1500 or std. w/ min. climb of 675' per NM to 800 or 2000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13**, climb heading 132° to 600 then turn left direct SGD VORTAC before proceeding on course. **Rwy 31**, climbing right turn direct SGD VORTAC before proceeding on course, or for climb in visual conditions cross Gnos Field at or above 1900' MSL then proceed direct SGD VORTAC before proceeding on course.

NOTE: **Rwy 13**, trees and hangars beginning at DER, 253' left of centerline, up to 50' AGL/369' MSL. Trees and hangars beginning at DER, 252' right of centerline, up to 50' AGL/369' MSL. **Rwy 31**, trees beginning 1.1 NM from DER, 445' left of centerline, up to 50' AGL/569' MSL.

## OAKDALE, CA

OAKDALE (O27)

ORIG 05356 (FAA)

DEPARTURE PROCEDURE: **Rwy 10**, climbing left turn via heading 020° and LIN VORTAC R-124 to WRAPS INT/LIN 16.66 DME. Climb in WRAPS holding pattern (Northwest, right turn, 124° inbound) to cross WRAPS INT at or above MEA for direction of flight. **Rwy 28**, climb via heading 276° and LIN VORTAC R-146 to LIN VORTAC cross LIN VORTAC at or above MEA for direction of flight.

NOTE: **Rwy 10**, terrain beginning 388' from DER, up to 279' MSL. **Rwy 28**, powerline 3447' from DER, 407' right of centerline, 115' AGL/329' MSL.

## OAKLAND, CA

METROPOLITAN OAKLAND INTL (OAK)

AMDT 6 90011 (FAA)

DEPARTURE PROCEDURE: **Rwys 9L, 9R, 11, 15, 29**, turn right. **Rwys 27L, 27R**, maintain runway heading.

**Rwy 33**, turn left. **All aircraft** climb to 4000 or above via V107 to COMMO Int. If not at 4000 at COMMO Int, climb in holding pattern (E, right turns, 288° inbound) before proceeding on course.

## ORLAND, CA

HAIGHT FIELD (O37)

AMDT 1 94286 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn. **Rwy 33**, climbing right turn. **All aircraft** climb via CIC R-238 to GONGS Int. Aircraft departing GONGS Int. 070° CW 240° or 290° CW 360° climb on course. All others climb in GONGS holding pattern (NE, right turns, 238° inbound) to depart GONGS Int at or above: 001° CW 069°, 3200'; 241° CW 289°, 2300'.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L10

## OROVILLE, CA

OROVILLE MUNI (OVE)

AMDT 2A 09267 (FAA)

TAKEOFF MINIMUMS: **Rwy 2**, 1300-2 or std. w/ min. climb of 260' per NM to 1700. **Rwy 30**, 400-1¾ or std. w/ min. climb of 245' per NM to 600.

DEPARTURE PROCEDURE: **Rwys 2, 30**, climbing left turn heading 170°. **Rwys 12, 20**, climbing right turn heading 290°. **All aircraft** climb via MXW R-052 to TALUM Int/ MXW 16.9 DME. Continue climb on course.

NOTE: **Rwy 2**, light poles beginning 1368' from DER, 538' right of centerline, up to 71' AGL/255' MSL. Tree 513' from DER, 603' left of centerline, 52' AGL/236' MSL. Windsock 1143' from DER, 350' right of centerline, 19' AGL/213' MSL. Ground 191' from DER, 489' right of centerline, 190' MSL. **Rwy 12**, light on pole 128' from DER, 293' right of centerline, 27' AGL/203' MSL. **Rwy 20**, pole 902' from DER, 655' right of centerline, 36' AGL/217' MSL. Vehicle on road 819' from DER, 376' left of centerline, 15' AGL/203' MSL. **Rwy 30**, obstruction light on transmission tower 1.4 NM from DER, 1825' right of centerline, 250' AGL/442' MSL. Tree 642' from DER, 638' left of centerline, 52' AGL/244' MSL.

## PALO ALTO, CA

PALO ALTO AIRPORT OF

SANTA CLARA COUNTY (PAO)

ORIG-A 12124 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, turn left.

**Rwy 31**, turn right. **All aircraft** climb direct SJC VOR/DME before proceeding on course.

NOTE: **Rwy 13**, building with ship mast 1325' from DER, 450' left of centerline, 60' AGL/67' MSL.

## PETALUMA, CA

PETALUMA MUNI (O69)

AMDT 1 90123 (FAA)

DEPARTURE PROCEDURE: **Rwy 11**, climb to 2400 or above direct SGD VORTAC. **Rwy 29**, climb runway heading to 1500 then climbing left turn to 3000 direct SGD VORTAC. **All aircraft** continue climb to MEA for route of flight.

## PLACERVILLE, CA

PLACERVILLE (PVF)

AMDT 3 12320 (FAA)

TAKEOFF MINIMUMS: **Rwy 5**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 23**, climb to 5000 on HNW R-226 then climbing right turn on HNW R-276 to HNW VOR/DME. Aircraft departing HNW VOR/DME R-180 CW R-303 climb on course; all others climb in HNW VOR/DME holding pattern (hold SW, right turns, 048° inbound) to cross HNW VOR/DME at or above MEA/MCA for direction of flight before proceeding on course.

NOTE: **Rwy 23**, hangar 20' from DER, 340' right of centerline, 27' AGL/2586' MSL.

## PORTERVILLE, CA

PORTERVILLE MUNI (PTV)

AMDT 2 98057 (FAA)

TAKEOFF MINIMUMS: **Rwy 12**, 200-1 or std. with a min. climb rate of 220' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn. **Rwy 30**, climbing left turn. **All aircraft** climb direct to TTE VOR/DME. Aircraft departing TTE R-146 CW R-330 climb on course. All others, continue climb in TTE holding pattern (NW, right turns, 143° inbound) to cross: TTE R-331 CW R-060, 8600; R-061 CW R-145, 7000. NOTE: 559' frost fan 3000' east southeast runway 12.

## RED BLUFF, CA

RED BLUFF MUNI (RBL)

AMDT 4 11041 (FAA)

DEPARTURE PROCEDURE: **Rwy 15**, climb direct RBL VORTAC, thence... **Rwy 33**, climbing right turn direct RBL VORTAC, thence... continue climb in RBL holding pattern (S, right turns, 341° inbound) to cross RBL VORTAC at or above MEA for route of flight. NOTE: **Rwy 15**, WSK 5' from DER, 258' right of centerline, 18' AGL/361' MSL. Tree 2065' from DER, 879' left of centerline, 100' AGL/449' MSL. **Rwy 33**, trees beginning 468' from DER, 563' left of centerline, up to 54' AGL/387' MSL. Trees beginning 587' from DER, 493' right of centerline, up to 73' AGL/393' MSL.

## REDDING, CA

REDDING MUNI (RDD)

AMDT 5 06327 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climb heading 122° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwy 16**, climbing left turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course. **Rwys 30, 34**, climbing right turn heading 110° and RBL R-344 to RBL VORTAC to 3000 before proceeding on course.

NOTE: **Rwy 12**, multiple trees and bush 86' from DER, 174' left of centerline up to 87' AGL/576' MSL, fence and equipment 282' from DER, 330' left of centerline, up to 8' AGL/500' MSL. **Rwy 30**, multiple trees beginning 1936' from DER, 210' left of centerline, up to 94' AGL/594' MSL, multiple trees beginning 1686' from DER, 326' right of centerline, 68' AGL/568' MSL. Multiple poles and antenna on hangar beginning 289' from DER, 385' left of centerline up to 34' AGL/534' MSL. Rod on pole 850' from DER, 524' right of centerline, 36' AGL/536' MSL. Powerline 2419' from DER, 1091' left of centerline 84' AGL/584' MSL. Hangar 1126' from DER, 528' left of centerline, 37' AGL/537' MSL. **Rwy 34**, sign 98' from DER, 356' left of centerline 5' AGL/510' MSL, tree 588' from DER, 483' left of centerline 16' AGL/521' MSL.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L10

SW-2



## RIO VISTA, CA

RIO VISTA MUNI (O88)

AMDT 1 12208 (FAA)

DEPARTURE PROCEDURE: **Rwy 7**, climbing left turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight. **Rwy 15**, climb to 800 then climbing left turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight. **Rwy 25**, climb to 500 then climbing right turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight. **Rwy 33**, climbing right turn direct SAC VORTAC. If required, continue climb in SAC VORTAC holding pattern (hold, S, right turns, 016° inbound) to cross SAC VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 7**, trees 11' from DER, 402' right of centerline, up to 20' AGL/39' MSL. Trees 184' from DER, 216' left of centerline, up to 20' AGL/39' MSL. **Rwy 15**, trees 917' from DER, 124' right of centerline, up to 20' AGL/49' MSL. Vehicle on road 168' from DER, 437' right of centerline, up to 15' AGL/44' MSL. Vehicle on road 268' from DER, 234' left of centerline, up to 15' AGL/34' MSL. Buildings 61' from DER, 354' right of centerline, up to 20' AGL/49' MSL. **Rwy 25**, trees 526' from DER, 169' left of centerline, up to 20' AGL/59' MSL. Vehicles on road 179' from DER, 228' left of centerline, up to 15' AGL/44' MSL. Buildings 231' from DER, 546' left of centerline, up to 20' AGL/49' MSL. **Rwy 33**, trees 316' from DER, 138' left of centerline, up to 20' AGL/39' MSL.

## SACRAMENTO, CA

SACRAMENTO EXECUTIVE (SAC)

ORIG 08325 (FAA)

NOTE: **Rwy 2**, multiple trees 1128' from DER, 108' left of centerline, up to 76' AGL/96' MSL. Antenna 1376' from DER, 663' left of centerline, 51' AGL/71' MSL. Trees 1858' from DER, 137' right of centerline, 73' AGL/93' MSL. **Rwy 12**, multiple trees 518' from DER, 26' left of centerline, up to 83' AGL/98' MSL. Light pole 507' from DER, 336' left of centerline, 37' AGL/52' MSL. Transmission pole 3971' from DER 647' left of centerline, 130' AGL/154' MSL. Multiple trees 475' from DER, 476' right of centerline up to 97' AGL/112' MSL. Light poles 711' from DER, 241' right of centerline, 36' AGL/51' MSL. **Rwy 16**, light pole 22' from DER, 481' left of centerline, 38' AGL/53' MSL. Antenna 540' from DER, 516' left of centerline, 53' AGL/67' MSL. Multiple trees beginning 1317' from DER, 36' left of centerline, up to 78' AGL/88' MSL. Multiple trees beginning 588' from DER, 195' right of centerline, up to 67' AGL/77' MSL. **Rwy 20**, multiple trees beginning 850' from DER, 626' left of centerline, up to 92' AGL/107' MSL. Multiple trees beginning 714' from DER, 515' right of centerline, up to 66' AGL/81' MSL. **Rwy 30**, obstruction light on hangers 460' from DER, 360' right of centerline, 25' AGL/43' MSL. Multiple trees beginning 631' from DER, 195' right of centerline, up to 56' AGL/74' MSL. Multiple trees beginning 1331' from DER, 247' left of centerline, up to 90' AGL/110' MSL. Antenna on building 1543' from DER, 442' left of centerline, 47' AGL/67' MSL. **Rwy 34**, trees 1724' from DER, 854' left of centerline, 56' AGL/74' MSL. Tree 2233' from DER, 1062' right of centerline, 79' AGL/99' MSL.

## SACRAMENTO INTL (SMF)

ORIG 06327 (FAA)

DEPARTURE PROCEDURE: **Rwy 16L**, climb via heading 164° to 800 before turning east.

## SACRAMENTO MATHER (MHR)

ORIG 94006 (FAA)

DEPARTURE PROCEDURE: **Rwys 4L, 4R**, climbing right turn direct SAC VORTAC. **Rwys 22L, 22R** climb direct SAC VORTAC.

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**SALINAS, CA**

SALINAS MUNI (SNS)  
AMDT 4 11321 (FAA)

TAKEOFF MINIMUMS: **Rwy 8**, std. w/min climb of 243' per NM to 800 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8**, climbing right turn to intercept SNS VORTAC R-124 to 5500 before proceeding on course or for climb in visual conditions: cross Salinas Muni Airport at or above 1700 then intercept SNS VORTAC R-124 to 5500 before proceeding on course.

**Rwy 13**, climbing left turn to intercept SNS VORTAC R-124 to 5500 before proceeding on course. **Rwy 26**, climbing right turn to intercept SNS VORTAC R-264 to 5000 before proceeding on course. **Rwy 31**, climbing left turn to intercept SNS VORTAC R-264 to 5000 before proceeding on course.

NOTE: **Rwy 8**, trees beginning 1967' from DER, 900' left of centerline, up to 100' AGL/199' MSL. **Rwy 26**, tree, light pole and road beginning 109' from DER, 266' left of centerline, up to 38' AGL/98' MSL. Light pole and road beginning 137' from DER, 281' right of centerline, up to 40' AGL/100' MSL. Poles beginning 909' from DER, 232' right of centerline, up to 52' AGL/102' MSL. Antenna on building, tower and tree beginning 1645' from DER, 426' left of centerline, up to 116' AGL/176' MSL. Microwave tower and tree beginning 1909' from DER, 31' right of centerline, up to 85' AGL/145' MSL. **Rwy 31**, building, road, and trees beginning 170' from DER, 1' right of centerline, up to 79' AGL/159' MSL. Road and trees 205' from DER, 200' left of centerline, up to 63' AGL/133' MSL. Pole and trees beginning 1042' from DER, 5' left of centerline up to 102' AGL/172' MSL. Fence, poles and trees 1109' from DER, 202' right of centerline, up to 78' AGL/158' MSL.

**SAN ANDREAS, CA**

CALAVERAS CO-MAURY RASMUSSEN FIELD  
(CPU)

TAKEOFF MINIMUMS: **Rwy 13**, 1800-5 or std. with a min. climb of 290' per NM to 3100.

DEPARTURE PROCEDURE: **Rwy 13**, climb runway heading to 3100, then climbing right turn via LIN R-085 to LIN VORTAC. **Rwy 31**, climb via heading 311° to 3000, then climbing left turn via Linden (LIN) VORTAC R-029 to LIN VORTAC.

**SAN CARLOS, CA**

SAN CARLOS (SQL)  
AMDT 1 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 30**, NA.

DEPARTURE PROCEDURE: **Rwy 12**, climbing left turn via heading 120° and SJC VOR/DME R-281 to SJC VOR/DME before proceeding on course.

NOTE: **Rwy 12**, ground 0' from DER, 148' left of centerline, 0' AGL/11' MSL. Building 2' from DER, 167' right of centerline, 27' AGL/30' MSL. Levee beginning 117' from DER, 90' left of centerline, up to 12' AGL/12' MSL. Pole 715' from DER, 294' right of centerline, 34' AGL/38' MSL. Tower 1674' from DER, 741' right of centerline, 106' AGL/111' MSL.

**SAN FRANCISCO, CA**

SAN FRANCISCO INTL (SFO)  
AMDT 8 12264 (FAA)

TAKEOFF MINIMUMS: **Rwys 19L, 19R**, std. w/min. climb of 565' per NM to 2000. **Rwys 28L, 28R**, std. w/min. climb of 351' per NM to 1300.

DEPARTURE PROCEDURE: **Rwys 1L, 1R**, climb heading 011° to 2000, thence ...

**Rwys 10L, 10R**, climbing left turn heading 050° to intercept SFO R-090 to 2300; thence ...

**Rwys 19L, 19R**, climbing left turn heading 050° to intercept SFO R-090 to 2600, thence ...

**Rwys 28L, 28R**, climb heading 281° to 2000, thence ...  
...continue climb on course.

NOTE: **Rwy 1L**, sign, fence beginning 169' from DER, 226' left of centerline, up to 7' AGL/14' MSL. Obstruction light on levee and fence beginning 209' from DER, 2' left of centerline, up to 6' AGL/14' MSL. **Rwy 1R**, fence 3' from DER, 329' left of centerline, 7' AGL/13' MSL. Terrain 62' from DER, 330' left of centerline, 12' MSL. Terrain 91' from DER, 515' right of centerline, 14' MSL. **Rwy 10L**, sign 62' from DER, 300' left of centerline, 4' AGL/15' MSL. Building and rod on building beginning 257' from DER, 560' left of centerline, up to 12' AGL/24' MSL. **Rwy 19L**, fence beginning 55' from DER, 462' left of centerline, up to 6' AGL/15' MSL. Sign 4' from DER, 168' right of centerline, 5' AGL/12' MSL. Multiple poles beginning 754' from DER, 47' left of centerline, up to 20' AGL/48' MSL. Multiple poles and a sign beginning 873' from DER, 337' right of centerline, up to 20' AGL/38' MSL. Multiple buildings, transmission towers, poles, trees, sign, electrical system beginning 1078' from DER, 12' left of centerline, up to 100' AGL/127' MSL. Multiple buildings, transmission towers, poles, trees, sign, electrical system beginning 194' from DER, 61' right of centerline, up to 100' AGL/128' MSL. Multiple buildings, trees beginning 4027' from DER, 152' right of centerline up to 100' AGL/167' MSL. **Rwy 19R**, multiple poles, trees, electrical system beginning 898' from DER, 82' right of centerline, up to 40' AGL/60' MSL. Multiple transmission towers, trees beginning 1638' from DER, 7' left of centerline, up to 80' AGL/96' MSL. Multiple transmission towers, trees beginning 1851' from DER, 16' right of centerline, up to 80' AGL/85' MSL. **Rwy 28L**, sign 19' from DER, 500' right of centerline, 5' AGL/9' MSL. Obstruction lights on DME beginning 277' from DER, 162' left of centerline, up to 16' AGL/ 26' MSL. Obstruction light on localizer beginning on centerline up to 10' AGL/17' MSL. Multiple poles, electrical system beginning 824' from DER, 300' left of centerline, up to 40' AGL/56' MSL. Multiple buildings, transmission towers, tank and pole beginning 1305' from DER, 370' left of centerline, up to 95' AGL/103' MSL. **Rwy 28R**, multiple signs, beginning 23' from DER, 140' right of centerline, up to 5' AGL/10' MSL. Terrain beginning 58' from DER, 146' right of centerline, up to 10' MSL. Sign, 63' from DER, 250' left of centerline 5' AGL/8' MSL. Terrain beginning 130' from DER, 235' left of centerline, up to 10' MSL. Antenna on building, obstruction light on DME, tree, beginning 556' from DER, 268' right of centerline, up to 35' AGL/43' MSL. Multiple poles beginning 918' from DER, 598' left of centerline, up to 22' AGL/35' MSL. Multiple buildings, trees beginning 1467' from DER, 683' right of centerline, up to 60' AGL/68' MSL. Multiple buildings, transmission towers, trees and electrical system beginning 1826' from DER, 123' left of centerline, up to 95' AGL/103' MSL.

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## TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



## SAN JOSE, CA

NORMAN Y MINETA SAN JOSE INTL (SJC)

AMDT 6B 10238 (FAA)

TAKEOFF MINIMUMS: **Rwys 11, 12R**, 400-2½ or std. with a min. climb of 260' per NM to 500.

**Rwy 12L**, 400-1¼ or std. with a min. climb of 278' per NM to 500.

DEPARTURE PROCEDURE: **Rwys 11, 12L, 12R**, climbing right turn via heading 315° to 2000, then via OAK R-135 to OAK VORTAC before proceeding on course. **Rwys 29, 30L, 30R**, Climb via heading 312° to 2000, then via OAK R-132 to OAK VORTAC before proceeding on course.

NOTE: **Rwy 11**, tree 1837' from DER, 230' right of centerline, 61' AGL/116' MSL. Tree 3410' from DER, 306' right of centerline, 92' AGL/154' MSL. **Rwy 12L**, trees 286' from DER, 68' right of centerline, up to 62' AGL/124' MSL. Multiple trees and antennas beginning 191' from DER, 228' left of centerline, up to 82' AGL/144' MSL. Tower 1731' from DER, 729' left of centerline, 86' AGL/153' MSL. Tower 3047' from DER, 543' left of centerline, 73' AGL/144' MSL. Light on blast fence 156' from DER, 57' left of centerline, 11' AGL/73' MSL. Light pole 191' from DER, 81' left of centerline, 16' AGL/78' MSL. Building 1.34 NM from DER, 1008' left of centerline, 243' AGL/329' MSL. **Rwy 12R**, multiple trees 269' from DER, 149' right of centerline, up to 80' AGL/100' MSL. Multiple trees 285' from DER, 193' left of centerline, up to 82' AGL/144' MSL. Pole 1948' from DER, 688' right of centerline, 66' AGL/128' MSL. Pole 1597' from DER, 685' right of centerline, 56' AGL/118' MSL. Obstruction light on blast fence 45' from DER, 115' right of centerline, 13' AGL/75' MSL. Vehicles on road 338' from DER, left and right of centerline, up to 17' AGL/82' MSL. Pole 1273' from DER, 279' right of centerline, 42' AGL/104' MSL. Obstruction light on localizer, 10' from DER, on centerline, 6' AGL/68' MSL. Tower 3046' from DER, 1243' left of centerline, 82' AGL/144' MSL. Building 1.34 NM from DER 1708' left of centerline, 243' AGL/329' MSL. **Rwy 29**, tree 2252' from DER, 114' left of centerline, 86' AGL/125' MSL. OL on GS 821' from DER, 400' right of centerline, 35' AGL/74' MSL. **Rwy 30L**, multiple antennas, poles, towers, and trees beginning 1014' from DER, 350' left of centerline, up to 59' AGL/94' MSL. Multiple antennas, poles, and trees beginning 1279' from DER, 379' right of centerline, up to 52' AGL/88' MSL. **Rwy 30R**, multiple antennas, fences, and poles beginning 139' from DER, 40' right of centerline, up to 95' AGL/124' MSL. Multiple poles and trees beginning 185' from DER, 38' left of centerline, up to 51' AGL/85' MSL.

## REID-HILLVIEW OF SANTA CLARA COUNTY (RHV)

TAKEOFF MINIMUMS: **Rwys 13L, 13R**, NA - environmental.

DEPARTURE PROCEDURE: Use DECOT DEPARTURE.

## SAN MARTIN, CA

SOUTH COUNTY AIRPORT OF SANTA CLARA COUNTY (E16)

AMDT 1 13066 (FAA)

TAKEOFF MINIMUMS: **Rwy 14**, std. w/min. climb of 324' per NM to 2200 or 1700-2½ for climb in visual conditions. **Rwy 32**, std. w/min. climb of 324' per NM to 1600 or 1700-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14, all aircraft**, climb to 2100 on heading 141°. Aircraft departing northwest on V485, climbing left turn heading 284° to intercept SJC R-121 (V485) to SJC VOR/DME and proceed on course; aircraft departing southeast on V485, climb on SJC R-121 and proceed on course. For climb in visual conditions: cross San Martin airport northwestbound at or above 1900, then climb on SJC R-121 to SJC VOR/DME. When executing VCOA, notify ATC prior to departure. **Rwy 32, all aircraft**, climb to 1600 on heading 321°. Aircraft departing northwest on V485, climbing left turn heading 270° to intercept SJC R-121 (V485) to SJC VOR/DME and proceed on course; aircraft departing southeast on V485, climbing left turn heading 120° to intercept SJC R-121 (V485) southeast bound to GILRO INT and proceed on course. For climb in visual conditions cross San Martin airport northwestbound at or above 1900, then climb on SJC R-121 to SJC VOR/DME. When executing VCOA, notify ATC prior to departure.

NOTE: **Rwy 14**, multiple trees, poles and vehicles on road beginning 25' from DER, 800' left of centerline, up to 100' AGL/359' MSL. **Rwy 32**, multiple trees, poles and vehicles on road beginning 17' from DER, 1521' left of centerline, up to 100' AGL/399' MSL. Trees beginning 3.9 NM from DER, 1.1 NM right of center, up to 200' AGL/1239' MSL.

## SANTA ROSA, CA

CHARLES M. SCHULZ-SONOMA COUNTY (STS)

AMDT 5 04330 (FAA)

TAKEOFF MINIMUMS: **Rwy 1**, std. with a min. climb of 267' per NM to 2400, or 1000-2½ for climb in visual conditions. **Rwy 32**, std. with a min. climb of 314' per NM to 2400, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 1, 32**, climbing left turn heading 164°, thence...or climb in visual conditions to cross the STS VOR/DME southwestbound at or above 1100, thence...

**Rwy 14**, climbing right turn heading 250°, thence...

**Rwy 19**, climb on heading 190°, thence...

...intercept and climb via STS R-202 to FREES INT, cross FREES at or above MEA for route of flight or continue climb in FREES holding pattern (SE, right turns, PYE VORTAC 334.73 inbound) to MEA for route of flight.

NOTE: **Rwy 1**, tree 739' from DER, 525' left of centerline, 40' AGL/141' MSL. **Rwy 14**, multiple trees beginning 321' from DER, 421' left of centerline up to 73' AGL/172' MSL. Tree 2113' from DER, 721' right of centerline, 77' AGL/176' MSL. **Rwy 19**, posts 39' from DER, 259' right of centerline, 7' AGL/126' MSL. Multiple trees beginning 1482' from DER, 461' right of centerline, up to 100' AGL/253' MSL. Multiple trees beginning 1666' from DER, 58' left of centerline, up to 55' AGL/257' MSL. **Rwy 32**, windsock 39' from DER, 341' left of centerline, 25' AGL/133' MSL. Multiple trees beginning 810' from DER, 87' right of centerline up to 50' AGL/205' MSL. Multiple trees beginning 2419' from DER, 167' left of centerline, up to 50' AGL/216' MSL.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



L14

## SOUTH LAKE TAHOE, CA

LAKE TAHOE (TVL)

AMDT 6 12040 (FAA)

TAKEOFF MINIMUMS: **Rwy 18**, std. w/min. climb of 832' per NM to 11500, or 1700 - 3 w/min. climb of 715' per NM to 11500. **Rwy 36**, 300 - 2 or std w/min. of 215' per NM to 6500, alternatively, with standard takeoff minimums and a normal 200' per NM climb gradient takeoff must occur no later than 1400' prior to DER.

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 177° to 7900 then climbing right turn to intercept SWR R-133 to SWR VOR/DME ...

**Rwy 36**, climb heading 357° to intercept SWR R-113 to SWR VOR/DME ...

... then proceed on course.

NOTE: **Rwy 18**, multiple trees beginning 10' from DER, 172' left and 113' right of centerline, up to 85' AGL/6415' MSL. **Rwy 36**, multiple trees beginning 166' from DER, 14' left and 97' right of centerline, up to 45' AGL/6405' MSL.

## STOCKTON, CA

STOCKTON METROPOLITAN (SCK)

ORIG 09015 (FAA)

TAKEOFF MINIMUMS: **Rwy 29R**, 300-1½ or std. w/min. climb of 210' per NM to 300 or alternatively, with standard TAKEOFF minimums and a normal 200'/NM climb gradient, TAKEOFF must occur no later than 1300' prior to DER.

NOTE: **Rwy 11L**, truck on road 199' from DER, 439' left of centerline, 15' AGL/49' MSL. Obstruction light on blast fence and antenna on building beginning 294' from DER, 39' right of centerline, up to 20' AGL/50' MSL. **Rwy 29L**, antenna on building 2956' from DER, 1204' left of centerline, 90' AGL/117' MSL. Stack 5562' from DER, 1721' right of centerline, 143' AGL/171' MSL. **Rwy 29R**, obstruction light on grain elevator, 1.0 NM from DER, 1882' left of centerline, 161' AGL/191' MSL. Light tower and rod on field light tower beginning 245' from DER, 1' left of centerline up to 44' AGL/71' MSL. Stacks and light on silo beginning 256' from DER, 381' right of centerline, up to 144' AGL/171' MSL.

## SUSANVILLE, CA

SUSANVILLE MUNI (SVE)

ORIG 03359 (FAA)

DEPARTURE PROCEDURE: Use AMEDDE DEPARTURE.

## TRACY, CA

TRACY MUNI (TCY)

AMDT 3 09295 (FAA)

TAKEOFF MINIMUMS: **Rwy 26**, 700-3 or std. w/ a min. climb of 320' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 8**, climb to 3000 via heading 073° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 12**, climbing left turn to 3000 to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 26**, climbing right turn to 3000 via heading 150° and MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course. **Rwy 30**, climbing right turn to 3000 via heading 150° to intercept MOD VOR/DME R-264 to MOD VOR/DME before proceeding on course.

NOTE: **Rwy 8**, tree 472' from DER, 198' left of centerline, 50' AGL/194' MSL. Fence 167' from DER, 8' right of centerline, 25' AGL/176' MSL. Vehicle on road 241' from DER, 412' left of centerline, 15' AGL/183' MSL. Vehicles on roads starting 241' from DER, 7' right of centerline, up to 15' AGL/189' MSL. Poles starting 403' from DER, 204' left of centerline, up to 54' AGL/208' MSL. Poles starting 727' from DER, 49' right of centerline, up to 54' AGL/212' MSL. **Rwy 12**, trees starting 436' from DER, 251' right of centerline, up to 72' AGL/253' MSL. Conveyor 1995' from DER, 504' left of centerline, 66' AGL/270' MSL. Poles starting 832' from DER, 396' right of centerline, up to 56' AGL/240' MSL. Obstruction light on hopper 1934' from DER, 274' right of centerline, 74' AGL/255' MSL. Vehicles on road starting 133' from DER, 272' left of centerline, up to 15' AGL/206' MSL. Fence 32' from DER 405' left of centerline, 25' AGL/194' MSL. **Rwy 26**, tree 1173' from DER, 180' right of centerline, 35' AGL/234' MSL. Trees starting 1067' from DER, 125' left of centerline, up to 35' AGL/794' MSL. Vehicle on road 236' from DER, 150' left of centerline, 15' AGL/214' MSL. Fence 69' from DER, 133' left of centerline, 23' AGL/203' MSL. Rising terrain 11105' from DER, 2814' left of centerline, up to 739' MSL.

**Rwy 30**, trees starting 438' from DER, 30' right of centerline, up to 35' AGL/209' MSL. Tree 1079' from DER, 82' left of centerline, 35' AGL/214' MSL. Obstruction light on hopper 985' from DER, 353' right of centerline, 72' AGL/236' MSL. Bush 195' from DER, 364' left of centerline, 25' AGL/189' MSL. Light pole 1149' from DER, 160' left of centerline, 47' AGL/211' MSL. Obstruction light on building 2289' from DER, 65' right of centerline, 74' AGL/238' MSL.

## TRAVIS AFB (KSUU)

FAIRFIELD, CA. . . . . 11069

All **Rwy**: Comply with assigned SID or ATC radar vectors.

DEPARTURE PROCEDURE: **Rwy 3L**, Climb on a heading between 344° CW to 137° from DER. **Rwy 3R**, Climb on a heading between 328° CW to 140° from DER. **Rwy 21L/R**, Climb on a heading between 187° CW to 237° from DER.

TAKEOFF OBSTACLES: **Rwy 3L**, Potential vehicle, 15' AGL/72' MSL, 616' from DER, 289' left of centerline. Potential vehicle, 15' AGL/71' MSL, 615' from DER, 267' right of centerline. **Rwy 21L**, Light pole 15' AGL/83' MSL, 148' from DER, 546' left of centerline. Light pole 15' AGL/84' MSL, 346' from DER, 547' left of centerline. Light pole 15' AGL/84' MSL, 521' from DER, 548' left of centerline. Light pole 15' AGL/83' MSL, 702' from DER, 549' left of centerline. Light pole 15' AGL/84' MSL, 880' from DER, 549' left of centerline. Light pole 15' AGL/85' MSL, 926' from DER, 661' left of centerline.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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## TRUCKEE, CA

TRUCKEE-TAHOE (TRK)

AMDT 4 08269 (FAA)

TAKEOFF MINIMUMS: **Rwys 10, 19**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwys 1, 28**, use TRUCK DEPARTURE.

## TULARE, CA

MEFFORD FIELD (TLR)

ORIG 93147 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn.

**Rwy 31**, climbing left turn. **All aircraft** climb direct to VIS VOR/DME. Aircraft departing VIS R-001 CW R-140

continue climb in VIS holding pattern (E, right turns, 287° inbound) to cross VIS VOR/DME at or above 4000. All other aircraft climb on course.

## UKIAH, CA

UKIAH MUNI (UKI)

AMDT 1 88070 (FAA)

TAKEOFF MINIMUMS: **Rwy 15**, NA. **Rwy 33**, 300-1 and min. climb of 350' per NM to 4000.

DEPARTURE PROCEDURE: Climb to 4000 via heading 350° then climbing left turn to 6000 direct ENI VORTAC.

## VACAVILLE, CA

NUT TREE (VCB)

AMDT 4 09127 (FAA)

TAKEOFF MINIMUMS: **Rwy 20**, std. w/ min. climb of 424' per NM to 1600, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 2**, climbing right turn to intercept SAC R-242 to SAC VORTAC, to 2000 before proceeding on course. **Rwy 20**, climbing left turn to intercept SAC R-242 to SAC VORTAC, to 2000 before proceeding on course, or, for climb in visual conditions: cross Nut Tree Airport eastbound at or above 1300, then climb to 2000 via SAC R-242 to SAC VORTAC, proceed on course.

NOTE: **Rwy 2**, trees beginning 222' from DER, 514' left of centerline up to 106' AGL/225' MSL. Light pole 337' from DER, 534' left of centerline, 28' AGL/147' MSL. **Rwy 20**, pole 161' from DER, 500' left of centerline, 120' AGL/239' MSL. Trees beginning 269' from DER, 335' left of centerline, up to 117' AGL/236' MSL. Pole 777' from DER, 436' left of centerline, 119' AGL/238' MSL. Windsock 6' from DER, 166' right of centerline, 8' AGL/127' MSL. Fence 193' from DER, 202' right of centerline, 3' AGL/122' MSL.

## VISALIA, CA

VISALIA MUNI (VIS)

AMDT 3 09239 (FAA)

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn via heading 230° to 2000 to intercept V23. **Rwy 30**, climbing left turn via heading 230° to 2000 to intercept V23.

NOTE: **Rwy 12**, tree 774' from DER, 618' right of centerline, 46' AGL/340' MSL. Tree 1327' from DER, 823' left of centerline, 55' AGL/349' MSL. **Rwy 30**, multiple trees beginning 179' from DER, 260' left of centerline, up to 54' AGL/343' MSL. Antenna on building 285' from DER, 250' right of centerline, 16' AGL/305' MSL. Truck on road 522' from DER, on centerline, 17' AGL/342' MSL. Railroad 690' from DER, 549' left of centerline, 23' AGL/317' MSL. Multiple trees beginning 876' to 3029' from DER, 341' to 461' left of centerline, up to 90' AGL/379' MSL. Multiple trees beginning 1886' from DER, 103' right of centerline, up to 58' AGL/347' MSL.

## WATSONVILLE, CA

WATSONVILLE MUNI (WVI)

AMDT 5 11013 (FAA)

DEPARTURE PROCEDURE: Use WATSONVILLE DEPARTURE.

## WILLITS, CA

ELLS FIELD-WILLITS MUNI (O28)

AMDT 1 04218 (FAA)

DEPARTURE PROCEDURE: **Rwy 16**, use MENDOCINO RNAV DEPARTURE. **Rwy 34**, use FLUEN RNAV DEPARTURE.

## WILLOWS, CA

WILLOWS-GLENN COUNTY (WLW)

AMDT 1A 10182 (FAA)

DEPARTURE PROCEDURE: **Rwy 13**, climbing right turn.

**Rwy 16**, climb heading 161°. **Rwys 31, 34**, climbing left turn. **All aircraft** climb direct to MXW VORTAC. Aircraft departing MXW Vortac R-330 CW R-220, climb on course. All others continue climb in MXW holding pattern (S, 350° inbound, left turns) to depart MXW Vortac 220° CW 290°, 6500, 291° CW 330°, 5500.

NOTE: **Rwy 34**, 55' AGL pole 530' from DER, 430' right of centerline. Pole 917' from DER, 404' right of centerline, 55' AGL/193' MSL.

## WOODLAND, CA

WATTS-WOODLAND (O41)

AMDT 3 09127 (FAA)

DEPARTURE PROCEDURE: **Rwy 18**, climb heading 185° and ILA R-151 to EMBER INT/ILA 48 DME before proceeding on course. **Rwy 36**, climbing left turn via heading 320° and ILA R-145 to ILA VORTAC before proceeding on course.

NOTE: **Rwy 18**, tree 2478' from DER, 283' right of centerline, 100' AGL/249' MSL. Vehicle on road 192' from DER, on centerline, 15' AGL/144' MSL. **Rwy 36**, tree 453' from DER, 69' left of centerline, 100' AGL/224' MSL. Vehicle on road 350' from DER, on centerline, 15' AGL/134' MSL. Tree 4489' from DER, 1688' left of centerline, 100' AGL/234' MSL.

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# TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



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